

Carl R. Darnall Army Medical Center PHYSICAL THERAPY Fort Hood, Texas



SELECTING THE RIGHT RUNNING SHOE FOR LOW ARCHED INDIVIDUALS

While the most likely cause of running injuries is improper training or excessive mileage, wearing either inappropriate or "worn out" shoes may also increase your risk for injury. A runner should have a basic knowledge of shoe type and his or her individual foot type to assist in running shoe selection. Because each of us has a unique pair of feet, there is not a perfect running shoe for everyone. Please follow these simple tips to ensure that you select the proper shoe type for your individual feet!

KNOW YOUR FEET: We have determined that you have a low arched foot or that you excessively pronate. When your foot hits the ground, it tends to roll inwards excessively. Your worn shoes probably tilt inward when viewed from the rear (picture A) because the inner midsole compresses more quickly. If you look at the soles of your shoes, they probably wear out mostly on the inner portion (picture B). A runner with low arches may be at greater risk for shin splints, achilles tendonitis, plantar fasciitis, and pain on the inside of the knee.

A: Medially or Inwardly Tilting Shoes



B: Medial or Inner Wear Pattern on Sole



FIND A SHOE THAT MATCHES YOUR FOOT TYPE: Buy a motion-control shoe. Motion control shoes are designed to counteract your foot's tendency to roll inwards excessively. These shoes should have a straight or semicurved last, firm midsole (dual density midsole with firmer surface on the inside), board or combination last, rigid heel counter, and substantial arch support. Depending upon the extent to which you excessively pronate and your body size, you may also do well with a stability running shoe.



AVOID cushioned shoes. Most likely, cushioned shoes will not sufficiently control your excessive pronation.

TIPS FOR TRYING ON SHOES:

- Try on shoes at the end of the day your feet swell as the day progresses.
- Try on shoes with the socks that you normally wear while exercising.
- Try on shoes with your arch supports or orthoses if you typically wear arch supports or orthoses when exercising.
- Try on both shoes: many of us have one foot which is longer than the other.
- Check shoe length while standing- the distance from your longest toe to the end of the shoe should be not less than one half the width, nor more than the entire width of your thumbnail.
- Check the width while standing- The shoe is too narrow if the upper (nylon portion) of the shoe is bulging over the sides of the midsole. The shoe is too wide if there is more than half a finger's width between the side of your foot (at the ball of your feet) and the side of the shoe.
- Raise up on your toes your heel should not rise or slide out of the shoe. In addition, raising up on your toes should not irritate or rub either heel.
- Remember each shoe style is slightly different. Your size may change with both the manufacturer and individual style of a running shoe. Always try on the next ½ size larger or smaller if you are questioning if the size is right.
- The shoes should immediately feel comfortable. There is no such thing as "breaking in a running shoe."

<u>ALWAYS</u>: Replace your running shoes every 400-600 miles. A running shoe loses its shock absorbency as it ages. After the first 100 miles, approximately 10% of the midsole's shock absorption capability is lost. Between 30-50% of shock absorption capability is lost after approximately 250 miles. Approximately 80% is lost after 400-500 miles.

If you need more help selecting a running shoe, seek out a knowledgeable sales person and ask for advice. Bring an old pair of running shoes for him or her to evaluate. A good source on the internet is: www.runnerworld.com/shoes/.

SOURCES: Consumer Reports; <u>www.roadrunnersports.com</u>; Runner's World; FM 21-20; and handouts/presentations from the physical therapy clinics at Ft. Hood, Ft. Jackson, Heidelberg, and Ft. Meade

Motion Control Running Shoes (Available Spring 2005) for those with a Low Arch

* Heavy runners: (Males > 180 lbs; Females > 150 lbs)

				Width			
Model	List \$	Available in AAFES	AAFES \$	One Width	Medium & Wide	Multiple Widths	Comments
Adidas Cairo III	\$100						
Adidas Calibrate	\$95						
Asics Gel Evolution	\$110	X	\$85				
Asics Gel Foundation Plus 2	\$90						
Asics Gel Foundation Plus	\$90						
Asics Gel MC Plus V	\$85						* Recommended for heavy runners
Brooks Addiction 6	\$85						
Brooks Beast 01	\$85						
Brooks Beast 02	\$95			X			* Recommended for heavy runners
Brooks Beast 04	\$110					X	* Recommended for heavy runners
New Balance 1122 MC	\$120						
New Balance 587 NV	\$100						
New Balance 815 BK	\$85						
New Balance 856	\$76	X	\$76	X			
New Balance 875	\$68	X	\$68	X			
Nike Air Structure Triax							
Saucony 3D Grid Regulate	\$90						
Saucony 3D Grid Regulate	\$115						Narrow and wide sizes available
Saucony Grid Stabil MC	\$90						
Saucony Grid Stabil MC5	\$90						
Mizuno Wave Renegade	\$110						
Puma Complete Taranis	\$120						Normal to low arch
Puma Complete Theron	\$85						Normal to low arch
Puma Complete Tenos	\$85						Normal to low arch
Puma Complete Nestor	\$100						Normal to low arch
Puma Tenon II	\$85						